

ENVIRONMENTAL PROTECTION COMMISSION[567]

Adopted and Filed

Pursuant to the authority of Iowa Code section 455B.474, the Environmental Protection Commission amends Chapter 135, “Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks,” Iowa Administrative Code.

Notice of Intended Action for this amendment on piping leak detection at unstaffed facilities was published in the Iowa Administrative Bulletin on June 17, 2009, as **ARC 7854B** along with other amendments. The proposed amendment on piping leak detection at unstaffed facilities was tabled for further consideration by the Environmental Protection Commission at its public meeting on August 18, 2009. The other proposed amendments in **ARC 7854B** were Adopted and Filed and published in the September 9, 2009, Iowa Administrative Bulletin as **ARC 8124B**. The amendment adopted herein addresses in-line leak detection systems for pressurized piping at unstaffed facilities.

The comments on this amendment concerned the cost of upgrades, the potential effect on reducing the availability of fueling stations in rural parts of Iowa, and the issue of whether this amendment was “more restrictive” than federal regulations and, if so, whether Iowa law prohibits such a rule. After meeting with stakeholder representatives, the Department modified this amendment.

In-line leak detection is required to detect large leaks in pressurized product lines of three gallons per hour or greater. Because the lines are pressurized, large releases of product can occur. Leak detection systems are normally designed to alert an on-site operator. When facilities are not staffed, there is no operator available to respond to an alarm and shut off the submersible pump. At an unstaffed facility, shutting down the submersible pump to stop the large leak may not occur for several hours or days.

It is difficult to estimate the number of 24-hour unstaffed facilities in operation since it is not a requirement to report that type of operation. The Department reviewed its underground storage tank database to determine the number of farm cooperatives and farm service facilities which were more likely to own or operate the unstaffed facilities and identified 217 sites.

More than one-half (62%) of the cooperative and farm service facilities have a suction delivery system which does not require leak detection monitoring. Twenty-six percent or 56 sites have pressure delivery systems with mechanical line leak detection (MLLD). Sites with MLLDs would have to convert to a leak detection system with positive shutdown of the submersible turbine pump (STP). Twelve percent (27) of the sites already have automatic tank gauging (ATG) systems, which may require only an inexpensive upgrade.

A wireless electronic line leak detector (WELLD) replacing an MLLD that meets the requirements of this amendment has an estimated cost of \$3,900 to \$4,500 for a typical three-tank system. It is estimated that WELLDs recover their cost after three or four years compared to MLLDs which need annual tightness testing and have a short operating life of six months to three years. WELLDs have an expected life of eight-plus years. Based on the estimated cost of installing a WELLD leak detector, the cost does not seem to be prohibitive.

A suggested alternative was to allow a telemetry system that notifies the owner or operator or its representative that a leak has been detected and to provide the owner or operator or its representative six hours from time of notification to be on site to shut down the submersible pump. The Department agreed that notification to the off-site operator was acceptable with immediate response. In 135.4(6)“f” of the operator training rules, two hours is allowed for the Class B operator to be on site after being contacted by the public, owner or operator. This two-hour travel time has been incorporated into this amendment.

The amendment extends to January 1, 2013, the phase-in period by which owners and operators must either install an in-line leak detector system which provides for positive shutdown or a system which immediately notifies the Class B operator of a release. This transition period allows owners and operators time to budget for the upgrade. To accommodate situations when the unstaffed facility is the only reasonably available location to obtain fuel, and when there may be a need to provide fuel for emergency response or fire safety vehicles, the facility may apply for a temporary extension of time to

meet these requirements as long as there is a plan for upgrading the leak detection system prior to January 1, 2013.

There was also concern from a municipality about availability of fuel from its own fuel system should the municipality's secondary containment system shut down due to equipment malfunction. The intention of this amendment is to allow systems to operate while faulty equipment is replaced or repaired. Language has been added to address this issue.

The federal rules require in-line leak detection on pressurized piping that alerts the operator to the presence of a leak. A review of the 1988 Preamble to the Federal Register, September 23, 1988, Vol. 53, No. 185, indicates that there was no consideration of unstaffed facilities since card-controlled dispensers were not in general use. Part IV, Section D of the Preamble includes the statement, "The Agency (EPA) believes the operators must be alerted immediately to the presence of leaks in pressurized lines." "Immediately alerting the operator" indicates the need for quick action to stop the leak.

State law requires Iowa's UST rules to specify adequate monitoring systems to detect the presence of a leak and provide protection of groundwater resources. (See Iowa Code section 455B.474(1)"a.") The rules adopted are also to be consistent with and not exceed the applicable federal regulations. (See Iowa Code section 455B.474(10)"j," unnumbered paragraph.) The federal rules are silent on unstaffed facilities but provide guidance on the intent of leak detection for pressurized piping. This amendment is consistent with federal rules and provides monitoring of pressurized piping needed to adequately detect and stop a leak in a timely manner and to protect the public and Iowa's groundwater resources.

This amendment is intended to implement Iowa Code section 455B.474.

This amendment shall become effective February 17, 2010.

The following amendment is adopted.

Adopt the following **new** paragraph **135.5(1)"e"**:

e. UST systems using pressurized piping that operate with no on-site personnel shall comply with the following requirements:

(1) Whenever an in-line leak detector is installed or replaced, it must be capable of shutting down the submersible pump.

(2) Existing sites with an in-line leak detection system in place on February 17, 2010, may continue operation provided that, by January 1, 2013, either of the following UST system modifications is made:

1. An in-line leak detector capable of shutting off the submersible pump is installed; or

2. The UST system is equipped with a device that immediately alerts the Class B operator or designee when a leak is detected. The Class B operator or designee shall be on site within two hours of notification and shut down the submersible pump. The UST system cannot be returned to service until the problem that caused the release response is resolved.

3. A temporary extension of time to meet these upgrade requirements may be granted if it can be shown that there is no reasonable alternative fueling source in the vicinity or fueling is needed to satisfy emergency or public safety considerations. The request for temporary extension must include documentation and a plan for upgrading prior to January 1, 2013.

(3) At sites with secondary containment sumps and continuous automatic sump sensors for leak detection monitoring, the continuous automatic sump sensors must shut off product flow when a leak is detected. If it is determined that a malfunction of the leak detection system is the cause of the shutdown, the UST system must be immediately repaired but may continue to be operated while the repairs are made.

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EDITOR'S NOTE: For replacement pages for IAC, see IAC Supplement 1/13/10.